USSR/Physics of the Earth - Seismology, O-3

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36380

Abstract: in an unlimited medium. When the time becomes large, a secondary wave occurs, following the fundamental one. Its amplitude may become greater than the amplitude of the basic pulse, although both amplitudes may turn out to be quite small as a result of attenuation.

Card 5/5

USSR/Geophysics - Seismology

PD-1786

Card 1/1 Pub 45-8/18

Author : Gurevich, G. I.

Title : Length and form of the wave occurring during rupture

Periodical : Izv. AN SSSR, Ser. geofiz. 3, 261-264, May-Jun 1955

Abstract : With Ye. F. Savarenskiy and D. P. Kirnos (1949), the author believes that the probable source of tectonic earthquakes is the movement of tectonic fractures along the surfaces, as indicated by determinations (by V. I. Keylis-Borok, D. A. Kharin, S. D. Kogan) of the dynamic parameters of earthquake foci. Here the author illustrates these notions by means of the simplest scheme of oscillations resulting from displaced rupture in the case of an unbounded ideally elastic medium with given density and modulus of displacement. Five references; e. g. G. A. Gamburtsev, "New methods and apparatus for the recording of seismic phenomena," Trudy Geofiz. in-ta AN SSSR, No 25 (152), 1952.

Institution: Geophysical Institute, Academy of Sciences USSR

Submitted : June 28, 1954

GUREVICH, G. I.

USSR/Physics of the Earth - Origin and Structure of the Earth, O-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36322

Author: Gurevich, G. I.

Institution: Institute of Physics of the Earth, Academy of Sciences USSR, Moscow

Title: On the Basic Features of the Behavior of Anomalous Liquids (Relative to the Problem of the Solid-Liquid State)

Original Periodical: Tr. Geofiz. in-ta AN SSSR, 1955, No 31, 107-134

Abstract: Earlier the author has worked out (Tr. Geofiz. in-ta AN SSSR, 1955, No 31, 107-134) the premises that the materials of various structures are characterized by common basic law of deformation over the entire range of variation in their state, from the solid state to the liquid state. For the purpose of verification, the applicability of these premises is considered as applied to "anomalous liquids (colloidal solutions, coarsely-dispersed systems, consistent lubricants, etc). The basic feature, distinguishing anomalous

Card 1/5

USSR/Physics of the Earth - Origin and Structure of the Earth, O-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36322

Abstract: liquids from "normal" Newtonian ones, is the nonlinear dependence of the amount of liquid flowing per unit tube cross section in steady-state laminar motion, and the pressure difference per unit length. Externally, these dependences have different forms for different anomalous liquids. In connection with this, it is customary in rheology to subdivide anomalous liquids (as well as other substances) into different classes of "rheological bodies" (Newtonian types, Bingham types, bodies having "limiting shear stresses" but are not Bingham bodies, bodies that have no limiting shear stresses, but are not Newtonian, etc). However, when the conditions of the action and of the observation change, the same substance, not having a structure, may be converted from one "rheological body" into another. Moreover, the same dependence of stress on the speed of shear, plotted in different time scales, characterizes in one case a body without any "limiting shear stresses" τ_0, and in another a body with a clearly defined τ_0, continuously changing from one form into another.

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USSR/Physics of the Earth - Origin and Structure of the Earth, O-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36322

Abstract: Experimental data on the steady-state flow in these viscosimeters (at constant temperature) of both Newtonian as well as anomalous liquids, assigned to various rheological classes, can be interpreted, starting with the same law: $\frac{du}{dr} = \frac{\tau e^{A\tau}}{\eta_*}$ (1)

The relationship derived from this between N (the number of revolutions per second of the external cylinder of a rotational viscosimeter) and P (the load under whose influence a cylinder rotates) is of the form:

$$N = \frac{1}{B}\left[10^{\eta P} - 10^{\left(\frac{R_1}{R_2}\right)^2 \eta P}\right], \quad (2)$$

where R_1 and R_2 are the radii of the internal and external cylinders, and η and B depend on the values of the structural parameters of the material A and η_* in equation (1) and on the dimensions of the instrument. This dependence provides a sufficiently good interpretation in practice for the experimental data obtained by M. P. Volarovich and Ye. P. Loshakova (Kolloid. zh., 1946, 8, No 3, 127), with a rotational viscosimeter built by M. P. Volarovich for many various consistent lubricants (of the Bingham type, Newtonian,

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USSR/Physics of the Earth - Origin and Structure of the Earth, O-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36322

Abstract: plastic but not of the Bingham type, etc) leading in the case of small values of A to the well known relationship between N and P for the Newtonian liquid. The connection obtained on the basis of equation (1) between Q and $\Delta p/l$, observed with the aid of a capillary viscosimeter, also becomes the usual Poiseuil law for small values of A and yields for lowest values of A the so-called "velocity profile" (distribution of displacement velocity over the section of the tube), typical for anomalous liquids. Thus, the sharp difference between the "anomalous" and "normal" liquids under identical action conditions may be ascribed to the difference in the parameters A and η_* of the same initial differential law. One can proceed to describe the transient state analogously. This is illustrated by an interpretation of the experiments by G. V. Vinogradov and M. M. Gvozdev (Dokl. AN SSSR, 1952, 86, No 2, 341) who used the Klimov torsion elastometer to plot the relationship between the shear angle and the tangential stress τ of solidal at different specified rates of increase in the value of τ from zero. From the same premises, one can approach an interpretation of the available experimental data on the deformation of mountain rocks

Card 4/5

USSR/Physics of the Earth - Origin and Structure of the Earth, O-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36322

Abstract: and to an understanding of the laws of their deformation under natural conditions. The author's equations describe the laws of the deformation only in the most general and basic outlines (without taking into account the anisotropy, the elastic after effects, hardening, and other phenomena, which may turn out quite substantial for individual problems). However, in the first stage it is exactly this general foundation, which characterizes the behavior of various materials under various gradations of solid-liquid state, that needs to be clarified.

Card 5/5

GUREVICH, G.I.

Concerning M.V. Ozovskii's article "Using scale models of structural field stresses and faults." Izv.AN SSSR.Ser.geofiz. no.4:483-487 Ap '56. (MLRA 9:8)

(Geology, Structural)

AUTHOR: Gurevich, G. I. SOV/20-120-5-16/67

TITLE: Relations Between the Stress Tensor and the Rate of Deformation Tensor in the General Case of Great and Small Deformations (O zavisimosti mezhdu tenzorami napryazheniy i skorostey deformatsiy v obshchem sluchaye bol'shikh i malykh deformatsiy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 5, pp. 987 - 990 (USSR)

ABSTRACT: According to previous investigations (Refs 3 - 6) Maxwell's (Maksvell) law of deformation holds in general for bodies in the deformed state. In those papers this law was given for the case of small deformations, in this work it is deduced for arbitrarily great deformations. Let the body be free from loads and without remanent stresses at $t \leq 0$. At $t > 0$ the body is assumed to be deformed in an arbitrary manner. Its elastically deformed shape is considered to deviate at arbitrary times only little from the equilibrium state. Under these assumptions the shape of the body can only change because of a remanent (irreversible) deformation. The following equation is found to govern the relation between the tensor of deformation rate $\dot{e}$

Card 1/3

Relations Between the Stress Tensor and the Rate of Deformation Tensor in the General Case of Great and Small Deformations.

and the stress tensor G:

$$2\mu\dot{\varepsilon} = \frac{dG}{dt} + \frac{G}{T} - \left(\frac{3\nu}{1+\nu}\frac{d\sigma_{mean}}{dt} + \frac{\sigma_{mean}}{T}\right) 1,$$

where μ denotes the torsion modulus, ν the Poisson (Puasson) coefficient, σ_{mean} the mean stress, and 1 the unit vector. This tensor equation is independent of the frame of reference, it is, however specialized for a Cartesian coordinate system resting in space. This equation is supplemented by three equations of motion, thus resulting a complete system of 9 equations, which permits to solve for the 9 unknowns u_i and σ_{ij} at given initial and boundary conditions. σ_{ij} denotes the stress tensor and u_i the projections of the displacements of the point under consideration. A number of special cases is mentioned. There are 6 references, 5 of which are Soviet.

Card 2/3

SOV/20-120-5-16/67

Relations Between the Stress Tensor and the Rate of Deformation Tensor in the General Case of Great and Small Deformations

ASSOCIATION: Institut fiziki Zemli im. O. Yu. Shmidta Akademii nauk SSSR (Institute of the Physics of the Earth imeni O. Yu. Shmidt AS USSR)

PRESENTED: October 19, 1957, by A. P. Aleksandrov, Member, Academy of Sciences, USSR

SUBMITTED: October 7, 1957

1. Materials—Deformation 2. Stress analysis 3. Mathematics

Card 3/3

Lurye, A.I.

24(6) PHASE I BOOK EXPLOITATION SOV/2250

Akademiya nauk SSSR. Institut fiziki zemli

Nekotoryye voprosy mekhaniki deformiruyemykh sred (Some Problems in the Mechanics of Deformable Media). Moscow, Izd-vo AN SSSR, 1959. 219 p. (Series: Its: Trudy, Nr. 2 (169)) Errata slip inserted. 2,000 copies printed.

Ed.: V.A. Magnitskiy, Doctor of Technical Sciences; Ed. of Publishing House: V.A. Kalinin; Tech. Ed.: Yu. V. Rylina.

PURPOSE: This book is intended for engineers and geophysicists concerned with problems of deformations.

COVERAGE: This collection consists of eight articles on the mechanics of deformations in solid plastic media as applied to the solution of geophysical and engineering problems. No personalities are mentioned. References appear at the end of each article.

TABLE OF CONTENTS:

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Petrachen', K.I. Ogurtsov.

AVAILABLE: Library of Congress

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[illegible]UR.VICH, [illegible]; [illegible]

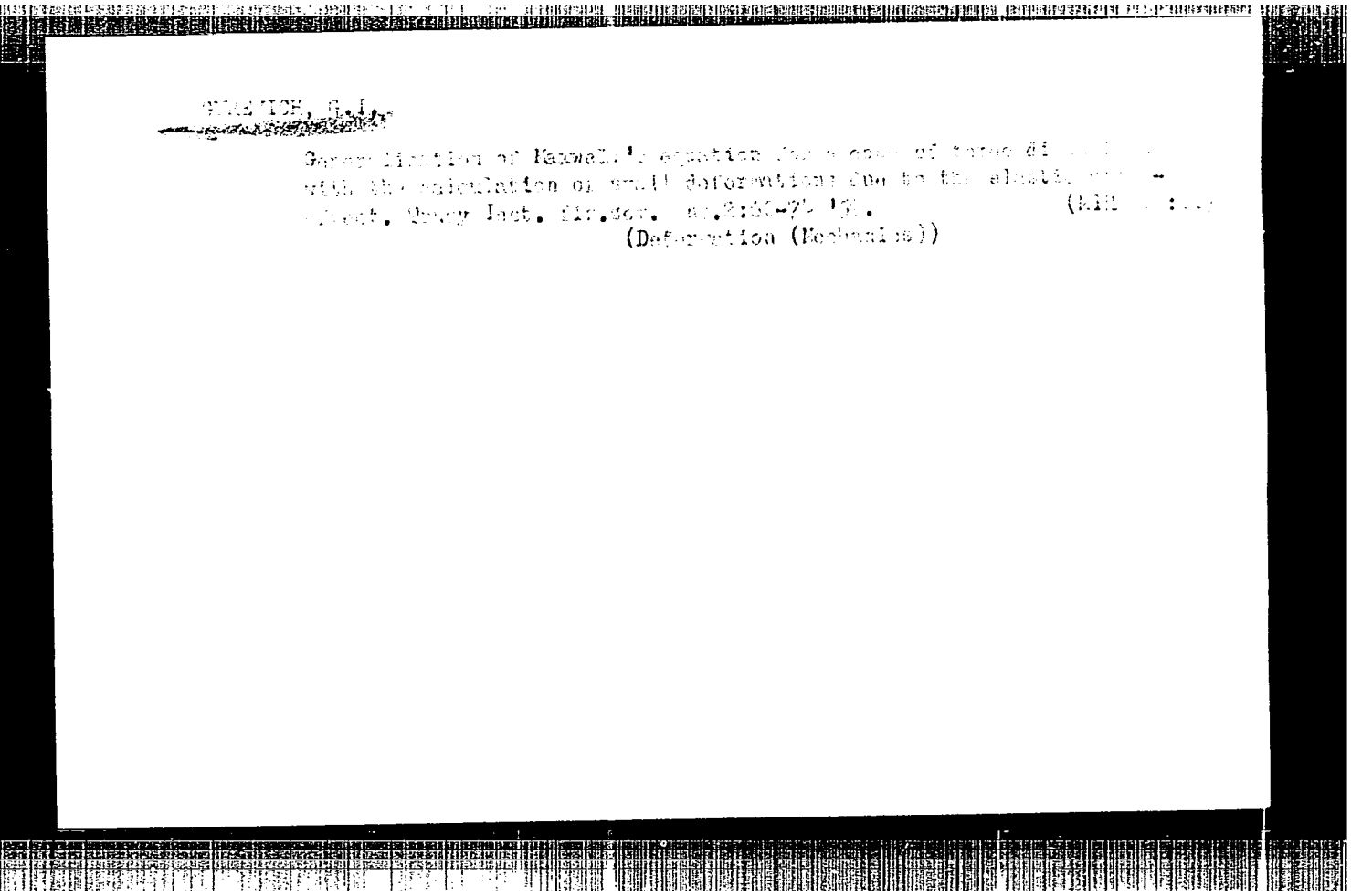
Relations [between] [stresses] and displacements during lar[ge] deformations in case of [a two-dimensional] problem. Trudy Inst. fiz.zem. no.2:3-26 '59. (MIRA 12:11)

(Deformations (Mechanics))

GURWICH, [illegible]

Relationship between [illegible] in the general case of a [illegible] [illegible]. Trudy [illegible] (C.J. [illegible]) [illegible]:[illegible] '59.

(Deformations (Mechanics))



GUREVICH, T.I.

Initial prerequisites for approaching the modeling of tectonic processes. Trudy Inst. fiz.zem. no.2:75-104 '59. (MIRA 13:11)
(Deformations (Mechanics)) (Geological modeling)

66414

3.9300 SOV/20-128-6-18/63

AUTHORS: Gurevich, G. I., Nersesov, I. L., Kuznetsov, K. K.

TITLE: On the Law of Earthquake Recurrence in Consequence of the Rules Governing the Deformation and Comminution of Rocks

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 6, pp 1163-1166 (USSR)

ABSTRACT: Yu. V. Riznichenko and I. L. Nersesov (Ref 1) proved the universal character of the relation $\lg \frac{N_S(E)}{N_S(E^*)} = -\gamma \lg \frac{E}{E^*}$, where $N_S(E)$ denotes the small-centered earthquake recurrence (i.e. the annual number per unit of the seismic zone), E their energy, E^* one of the values of E; furthermore, $\gamma \cong 0.4 - 0.45$ holds. The above relation holds true in nearly the entire range of the measured E ($10^7 - 10^{25}$ erg). Only in the proximity of the largest E of the zone for which the above equation is set up, γ strongly increases with rising E. The comminution of solid bodies is correlated with a similar relation $\lg \frac{N(v)}{N(v_{min})} =$

Card 1/4

On the Law of Earthquake Recurrence in Consequence of the Rules Governing the Deformation and Comminution of Rocks

$= - \bar{\gamma} \lg \frac{v}{v_{min}}$, where N(v) denotes the number of those sample fragments whose volumes v are placed between v and 10 v, and v_{min} the smallest among the v considered. Furthermore, $\bar{\gamma} \cong 0.6 - 0.7$ holds under the condition of a moderate degree of comminution, and that v_{min} be larger than the volume of those particles which are rubbed off from the surface of the fragments. The above relation is practically determined only by the rule governing the sample straying through the separation plane. A diagram shows the summed results of experiments made on 20 samples of cement, colophony, and on various rocks. The second equation written above can be provisionally explained by considering that the new separation planes are formed mainly between the closest of the earlier thrown up separation boundaries. Energy E is computed as that energy which separates on the surface of a sphere having the chosen radius R. This radius is assumed to be the same for all earthquakes. For the various seismic zones, the largest among the three main tangential

Card 2/4

On the Law of Earthquake Recurrence in Consequence of the Rules Governing the Deformation and Comminution of Rocks

stresses is of the order of magnitude 1 - 10 kg/cm^2. Hence, E_o may be stated as being proportional to the volume of the hearth $v_o = (4\pi/3)r_o^3$. Within the scope of the problem under investigation, the macroscopic characteristics of the state of the seismically active region of the earth crust (seismic zone) may be computed by means of the sole quantity $\tau_{max} = \eta\dot{\varepsilon}$, ε denoting the largest among the three main shearing rates of the remanent (irreversible) zone deformation, η the mean value of the effective toughness in steady rock currents. The authors also investigated the typical case of earthquakes originating from the contact zone of two geological massifs moving with relative velocity F. For the recurrence of earthquakes the relation $N_v \cong \frac{1}{TL^3}\left[\frac{L^3}{v_o}\right]^{2/3}$ is found, which may also be expressed by $\dot{\varepsilon}$, τ_{max}, E_o, and E. L denotes the zone width with the volume $V = LS$,

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SOV/20-128-6-18/63

On the Law of Earthquake Recurrence in Consequence of the Rules Governing the Deformation and Comminution of Rocks

where S is the surface area of its section with the shearing plane. The formula derived here is in general agreement with seismological data. There are 1 figure and 3 references, 2 of which are Soviet.

ASSOCIATION: Institut fiziki Zemli im. O. Yu. Shmidta Akademii nauk SSSR (Institute of the Physics of the Earth imeni O. Yu. Shmidt of the Academy of Sciences, USSR)

PRESENTED: June 11, 1959, by A. F. Ioffe, Academician

SUBMITTED: June 8, 1959

Card 4/4

25330

S/020/61/138/006/006/019
B104/B214

24 4100

AUTHOR: Gurevich, G.I.

TITLE: The theory of oscillations with small amplitude

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 6, 1961, 1313-1316

TEXT: In the introduction the author refers to the fact that in the propagation of oscillations of small amplitude in metals, rocks, inorganic glasses, and high polymers the logarithmic decrement is practically independent of the frequency. This is shown to be related with the non-Hooke deformations which occur for these oscillations and are independent of the special microstructures of the different substances. The differences between Hooke and non-Hooke deformations are discussed exhaustively. In non-Hooke deformations there takes place a regrouping of the different elements of the microstructure of the substance concerned. As model serves a system of similar, bound particles which regroup themselves from time to time into equilibrium positions. If in this case the bindings with the old positions disappear this is an irreversible, permanent deformation: $\varepsilon_{\text{OCT},M}$. From this model follows: $d\varepsilon_{\text{OCT},M}/dt = (e_n - \theta_r/3)/T_{\text{OCT}}$

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The theory of oscillations ...

(1) (n = 1, 2, 3) (G.I. Gurevich, Tr. Geofiz. inst. AN SSSR, no. 21, 1953)), where $\Theta_r = \sum_{n=1}^{3} e_n$. In this earlier paper Eq. (1) was derived without consideration of the fact that in a regrouping different numbers of particles are involved depending on the fluctuation energy U. If this fluctuation is considered one obtains:

$$\frac{de_{\text{ост},n}}{dt} = \int_{U_0}^{NU_0} \left[\frac{(e_n - \Theta_r/3)}{T_{\text{ост}}}\right] \exp\left\{-\frac{U-U_0}{k\Theta}\right\} \frac{dU}{k\Theta}, \qquad (2)$$

Here U_0 is the energy consumed by a particle participating in the regrouping; k is the Boltzmann's constant; Θ is the temperature and N the number of particles of the model. On account of the Boltzmann distribution of the energy fluctuations this expression can be represented as a sum of the velocities $(e_n - \Theta_r/3)/T^*_{\text{ост}}$:

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The theory of oscillations ...

$$\frac{de_{\text{ост},n}}{dt} = \int_{T^*_{\text{ост}}}^{\infty} \frac{de^*_{\text{ост},n}}{dt} \frac{dT^*_{\text{ост}}}{T^*_{\text{ост}}} = \int_{T^*_{\text{ост}}}^{\infty} \frac{e_n - \theta_r/3}{T^*_{\text{ост}}} \frac{dT^*_{\text{ост}}}{T^*_{\text{ост}}} \qquad (3)$$

The components e_y of the non-Hooke deformations arising from small energy fluctuations cause no irreversible regrouping. They give rise, however, to very slight reversible displacements of the microparticles. e_y is called as the principal component of the deformation of the aftereffect. Analogously to (1) one obtains here:

$$\frac{de_{y,n}}{dt} = \int_{T^*_y}^{T^*_M} \left(\frac{de^*_{y,n}}{dt}\right) \frac{dT^*_y}{T^*_y} \quad (n = 1, 2, 3), \qquad (4)$$

where $T_M = T_y \exp\left\{(U_o - U_{o,y})/K\right\}$, and

$$\frac{de^*_{y,n}}{dt} = \frac{\mu(e_n - \theta_r/3) - \mu_y(e^*_{y,n} - \theta^*_y/3)}{T^*_y(\mu + \mu_y)} + \frac{K\theta_r - K_y\theta^*_y}{3T^*_y(K + K_y)}, \qquad (5)$$

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The theory of oscillations ...

holds for $de_{y,n}/dt$. Here $\Theta_y^* = \sum_{n=1}^{3} e^*_{y,n}$, and μ and K are the Hooke's shear modulus and the coefficient of volume expansion. From these equations one obtains:

$$\frac{1}{\rho}\frac{\partial}{\partial t}\left[(\lambda+\mu)\frac{\partial\theta}{\partial x_i}+\mu\nabla^2 u_i\right] =$$

$$= \frac{\partial^2 u_i}{\partial t^2} + \frac{1}{T_y R}\int_{\exp(-R)}^{1}\left[\frac{g}{\mu_y^*}\exp\left\{-\frac{g t\xi}{\mu T_y}\right\}\int_0^t \exp\left\{\frac{g}{\mu}\frac{t\xi}{T_y}\right\}\left(\frac{\partial^2 u_i}{\partial t^2}-\frac{K}{\rho}\frac{\partial^2\theta_r}{\partial t\,\partial x_i}\right)dt + \right.$$

$$\left. + \frac{G}{K_y^*}\exp\left\{-\frac{Gt\xi}{KT_y}\right\}\int_0^t \exp\left\{\frac{Gt\xi}{KT_y}\right\}\frac{K}{\rho}\frac{\partial^2\theta_r}{\partial t\,\partial x_i}\,dt\right]d\xi \quad (i=1,2,3) \qquad (6)$$

where $\xi = T_y/T_y^*$, $R = \ln(T_M/T_y)$, $g = \mu/(1+\mu/\mu_y^* R)$, $G = K/(1+K/K_y^* R)$, $\mu_y^* = \mu_y/R$ and $K_y^* = K_y/R$, K_y and μ_y are the corresponding moduli not depending on T_y, μ_y/μ and K_y/K macroscopically characterize the compactness of the packing of the microparticles. In substances with large compactness (e.g., quartz) these values are very large and the damping very small. At depths of two

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B104/B214

The theory of oscillations ...

to three kilometers under the surface of the earth all rocks are compact and the logarithmic decrement approaches one and the same value. The ratio of the velocities of the longitudinal and transverse waves also approaches the Hooke's ratio (1.7 - 1.9). There are 15 references: 10 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Institut fiziki Zemli im. O.Yu. Shmidta Akademii nauk SSSR (Institute of Physics of the Earth imeni O.Yu. Shmidt of the Academy of Sciences USSR)

PRESENTED: September 17, 1960, by A.P. Aleksandrov, Academician

SUBMITTED: September 15, 1960

Card 5/5

VAYNER, K.M.; GUREVICH, G.I.

Recent data on the geological structure of the Pytkov Kamen' region. Dokl. AN SSSR 142 no.6:1359-1361 F '62.
(MIRA 15:2)

1. Ukhtinskoye territorial'noye geologicheskoye upravleniye.
Predstavleno akademikom D.V.Nalivkinym.
(Pytkov Kamen' Region—Geology)

GUREVICH, G.I.

Basic regularities in the propagation and attenuation of seismic vibrations. Pt. 1. Vop. din. teor. raspr. seism. voln no.6: 124-146 '62. (MIRA 16:7)

(Seismic waves)

VASIL'YEV, Yu.I.; GUREVICH, G.I.

Ratio between the decrements of attenuation and the velocity of the propagation of longitudinal and transverse waves. Izv. AN SSSR. Ser.geofiz. no.12:1695-1716 '62. (MIRA 16:2)

1. Institut fiziki Zemli AN SSSR.
(Seismic waves)

GUREVICH, G.I.

Change in the seismic wave velocities in the area of the formation of the earthquake focus. Trudy Inst. fiz. Zem. no.25:151-166 '62. (MIRA 15:11)

(Seismic waves)

L 32539-65 EWT(1)/EWA(h) Pe-5 GW

ACCESSION NR: AT5012708 UR/2585/64/000/007/0036/0060 9

B+1

AUTHOR: Gurevich, G.I.

TITLE: Basic laws of propagation and damping of seismic oscillations. II

SOURCE: Voprosy dinamicheskoy teorii rasprostraneniya seysmicheskikh voln, no. 7, 1964, 36-60

TOPIC TAGS: seismic wave propagation, seismic wave damping, uniformly deformed sample, dynamic oscillation equation, transverse wave damping, longitudinal wave damping, seismic compact medium

ABSTRACT: This is a continuation of an article under the same title published in the preceding symposium of the same series (Voprosy dinamicheskoy teorii rasprostraneniya seysmicheskikh voln, no. 6, 1962, Izd. LGU). It presents and theoretically discusses the behavior of materials under various loading conditions, the oscillation damping of a uniformly deformed sample, the dynamic oscillation equations and the damping of transverse waves, the expressions for the damping coefficient and the propagation velocity of the plane longitudinal wave, certain relationships between the damping coefficients of longitudinal and transverse waves in compact materials, the transition region from the state of increased porosity to the state of great compactness, and the damping of oscillations within

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ACCESSION NR: AT5012708

samples of different shapes. Orig. art. has: 68 formulas and 4 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: ES, ME

NO REF SOV: 012 OTHER: 002

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Card 2/2

GUREVICH, G. I.

3

33411
S/064/62/000/001/004/005
B110/B138

5.3400

AUTHORS: Fioshin, M. Ya., Lebedev, I. M., Kazakova, L. I., Gankin, S. Z., Khol'mer, O. M., Gurevich, G. I., Neyman, Ye. Ya.

TITLE: Electrosynthesis of ω-oxypentadecanoic acid

PERIODICAL: Khimicheskaya promyshlennost', no. 1, 1962, 41 - 43

TEXT: ω-oxypentadecanoic acid (I) is produced by "mutual" anodic condensation of ω-acetoxyundecanoic acid (II) and adipic acid monoethyl ester (III), during the electrolysis of an aqueous solution of a mixture of their salts: $CH_3COO(CH_2)_{10}COO^- + {}^-OOC(CH_2)_4COOC_2H_5 \longrightarrow CH_3COO(CH_2)_{14}COOC_2H_5 + 2CO_2$ and then saponification of ethyl ester. The authors wished to obtain better yields by substituting the aqueous by an alcoholic medium, and the Pt anode by PbO_2, magnetite, and graphite anodes. A cylindrical glass electrolyser with cylindrical, Pt anode, perforated Ni cathode and graphite rod anode concentrically arranged, was

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Electrosynthesis of...

filled with an alcoholic solution of II, III, potash, and soda. Current intensity, voltage, and temperature were measured, and the electrolysis was concluded when 0.7 - 1.0 ml of 0.1 N KOH solution (phenol phthalein) was used per ml of electrolyte. After distilling C_2H_5OH at 20 mm Hg, the following quantities were fractionated at 2 - 5 mm Hg: (a) 30% at 160°C; (b) 25% at 183°C; and (c) 30% at 183 - 200°C. The (c) substance was the ester of I. ~10% ester was separated from (a) and (b). It was saponified for 2 hrs with a 50% KOH solution in the presence of ethanol, then acidified with HCl, and I was extracted with toluene. With 125 ml C_2H_5OH, 21 g II, 45 g III, and 5 g K_2CO_3, the I yield was 45 - 48% at 10 a/dm^2. As 3.42 times the theoretical amount of current is required with an aqueous solution, the yield, 27% must be appropriately divided: 27/3.42 ≈ 8%. As Pt consumption is 150 g ton the possibility of using PbO_2, magnetite, or graphite was studied. The dependence of yield on electrolysis conditions was studied with nonporous graphite in ethyl and propyl alcohol with 112 g of II, 238 g of III, and 24 g of K_2CO_3 at 60 - 65°C. Yield of I, 40 - 50%, was not dependent on the current

Electrosynthesis of...

intensity in a wide range. Maximum yields were obtained with a II : III ratio of 2 : 1 and 1 : 3 at 12 a/dm^2, 60 - 65°C and a K_2CO_3 concentration of 20 g/liter. Voltage increases rapidly with anode density and decreases with K_2CO_3 concentration. The optimum is 40 - 50 v. With 7 g/liter H_2O, a ratio of II : III = 1 : 3, and at 14 a/dm^2 and 60 - 65°C, the yield is 49.2% decreasing to 35%, with 100 g/liter of H_2O. Optimum yields (49.2% current efficiency) are obtained with ethanol or propanol solutions of 112 g/liter II, 238.6 g/liter III, 24 g/liter K_2CO_3, 7 g/liter H_2O and anode density of 14 a/dm^2 at 60 - 65°C. If the old solution was replaced when acidity reached 1.2 - 1.4 ml of 0.1 N KOH/ml, yield was 44 - 45% (41.5% current efficiency) at 15 a/dm^2 and 65 - 70°C. Yield was almost doubled by using an alcoholic electrolyte (six times the current efficiency). Part II which is bound as a salt and does not react, can be recycled. The higher energy consumption (voltage increase 3 - 4 times) is compensated by increased current efficiency. There are 4 figures, 1 table, and 3 Soviet references.

Card 3/3

GUREVICH, G. I. Cand Tech Sci

Dissertation: "On the Problem of Change in the Mechanical Properties of Rigid Materials."

16 June 49

All-Union Sci Res Inst of Cinematography

SO Vecheryaya Moskva
Sum 71

GUREVICH, G. I.

USSR/Engineering - Strength of Materials 11 Jan 52

"Concerning the Criteria of Strength," G. I. Gurevich, Geophys Inst, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXXII, No 2, pp 245-248

Develops system of 3 eqs connecting chief deformations and stresses of elementary parallelepiped along 3 axes. Discusses transition of material from electric-plastic state to accelerated flow and, as result, viscous failure. Analyzes possibility of clarifying dependence of failure type not only on temp and rate of deformation but also on stressed state of material. Submitted by Acad A. F. Ioffe.

GUREVICH, G. I.

"Correlation of Elastic and Residual Deformations in the General Case of Homogeneous Tension State", Tr. Geofiz. Inst. AN SSSR, No 21, 1953, pp 49-90.

Attempt is made to derive equations relating the values of elastic deformation to the speed of formation of residual deformation for homogeneous and isotropic bodies of arbitrary structure. The equations of elasticity theory are completed with the temperature effect and the dependence of the activation heat on the state of tension. The elastic body is considered a system of material points bound by the action of central forces. (RZhFiz, No 1, 1955) SO: Sum. No. 443, 5 Apr. 55

FIOSHIN, M.Ya.; LEBEDEV, I.M.; KAZAKOVA, L.I.; GANKIN, S.Z.; KHOL'MER, O.M.; GUREVICH, G.I.; NEYMAN, Ye.Ya.

Electrosynthesis of ω -oxypentadecanoic acid. Khim.prom. no.1:41-43 Ja '62. (MIRA 15:1)

(Pentadecanoic acid)

GUREVICH, Gedaliy Il'ich; LEBEDEV, N.N., red.; BORUNOV, N.I., tekhn. red.

[Construction of 6-10 kv. substations with transformers having power ratings up to 560 kv.-a] Montazh podstantsii 6-10 kv. s transformatorami do 560 kva. Moskva, Gosenergoizdat, 1963. 83 p. (Biblioteka elektromontera, no.93) (MIRA 16:8)
(Electric substations)

GUREVICH. G.K.

I. a.

Strength of Materials

7/87 539.4.012.5

On the Question of the Criterion of Strength

Dokl. Akad. Nauk 82(2), 245-248 1952

U.S.S.R.

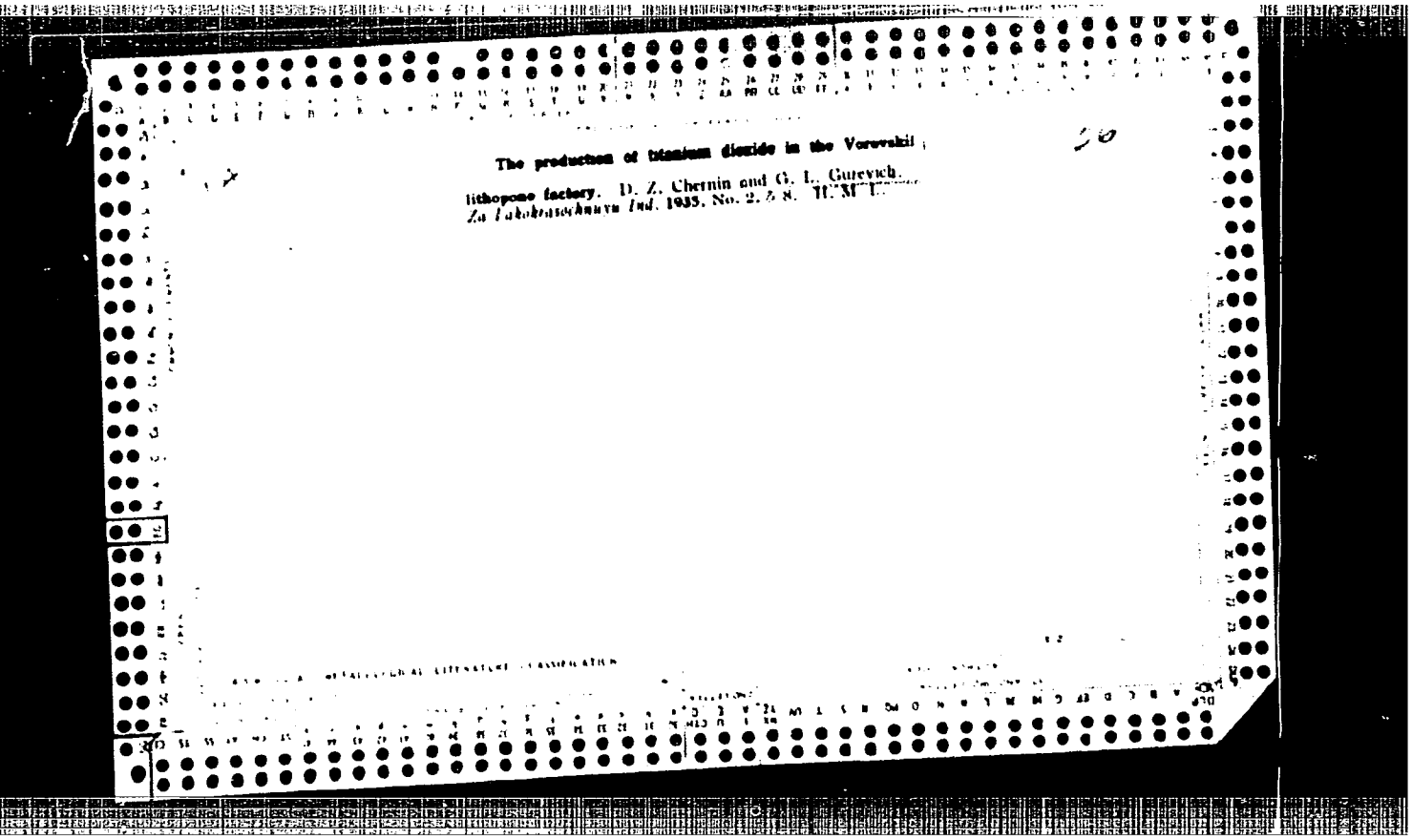
G.K. Gurevich

Since previous research left unanswered the cases of bi- and tri-axial loading, an attempt is made to give a system of three equations connecting all major strains and deformations. As an example, the conditions of the destruction of a parallel-piped of an ideal elastic-plastic material are quantitatively and qualitatively examined. The results clarify the dependence of the character of destruction not only from the thermal and mechanical conditions of the formation, but also from the stressed state. (Bibl. 2)

ALEKSANDROV, A.P.; GENKIN, G.M.; GUREVICH, G.L.; DUBININ, V.I.

Establishment of ferrite magnetization precession at high power levels. Fiz. tver. tela 5 no.10:2766-2770 O 63. (MIRA 16:11)

1. Radiofizicheskiy institut Gor'kovskogo gosudarstvennogo universiteta.



The production of titanium dioxide in the Voroveikil
lithopone factory. D. Z. Chernin and G. L. Gurevich.
Za Tekhnicheskuyu Ind. 1935, No. 2, 7-8. [illegible]

Gurevich, G. L.

CHINA/Chemical Technology. Chemical Products and Their Application--Fats and Oils. Waxes. Soaps, Detergents. Flotation reagents. I-27

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 10167

Author : Samarin, I. Ya. and Gurevich, G. L.
Inst : Not given
Title : From the Operating Experience of the Gor'ki fats Processing Plant. Clarification of Soap stocks with Hydrogen Peroxide.

Orig Pub: Maslob.-zhir. prom-st, 1953, No 4, 25-27 (in Russian); Khuasyue shitsze, 1953, Vol 6, No 11, 293 (in Chinese)

Abstract: The soap stock is completely saponified in the cooking kettles, the soap is salted out and washed. The soap stock mass must be at an alkalinity of not under 0.1% and be maintained at that level throughout the subsequent treatment with hydrogen peroxide. The latter is diluted

Card 1/2

CHINA/Chemical Technology. Chemical Products and Their Application--Fats and oils. Waxes. Soaps. Detergents. Flotation reagents. I-27

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 10167

Abstract: to a concentration of 10-15% and fed to the kettled through a pipe terminating in a diffuser located 30-50 mm above the bottom of the kettle, through a pipe terminating in a diffuser located 30-50 mm above the bottom of the kettle. The treating time with hydrogen peroxide is 2-2.5 hrs. The consumption of 30% H_2O_2 is 3-8% of the weight of the fat. During treatment with H_2O_2 the soap is agitated mechanically or by compressed air.

Card 2/2

1. SAMARIN, I. Ya.; GUREVICH, G. L.; Engs.
2. USSR (600)
4. Soap
7. Work practice of the Gor'kiy Fat Combine. Masl. -zhir. prom. 18, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SAMARIN, I.Ya., inzhener; GUREVICH, G.L., inzhener.

Marking boxes with an electric stamp. Masl.-zhir.prom. 18 no.5:27 My '53. (MLRA 6:5)

1. Gor'kovskiy zhirkombinat. (Marking devices)

SAMARIN, I.Ya., inzhener; GUREVICH, G.L., inzhener.

Machine for cleaning rosin from barrel staves. Masl.-zhir.prom. 18 no. 5:27 My '53. (MLRA 6:5)

1. Gor'kovskiy zhirkombinat. (Barrels)

GUREVICH, G. L.

SAMARIN, I.Ya., inzh.; GUREVICH, G.L., inzh.

Gorkiy Oils and Fats Combine during the forty years of the Soviet regime. Masl.-zhir. prom. 23 no.11:39-44 '57. (MIRA 11:1)
(Gorkiy--Oils and fats--History)

PANYSHEV, A.S., inzh.; GUREVICH, G.L., inzh.; GRAUERMAN, L.A., kand.tekhn. nauk; KARANTSEVICH, L.G.; UL'YANOVA, G.S.

Fiftieth anniversary of the industrial hydrogenation of fats. Masl.-zhir.prom. 26 no.3:15-21 Mr '60. (MIRA 13:6)

1. Gor'kovskiy maslozhirovoy kombinat (for Panyshev and Gurevich). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov (for Grauerman, Karantsevich and Ul'yanova).

(Oils and fats) (Hydrogenation)

L 63849-65 EWA(k)/FBD/EWT(1)/EEC(k)-2/T/EEC(b)-2/EWP(k)/EWA(m)-2/EWA(h)
SCTB/IJP(c) WG

ACCESSION NR: AP5020361 UR/0141/65/008/003/0493/0503
621.378.3

AUTHOR: Gurevich, G. L.; Khromopulo, Yu. G.

TITLE: Some problems in the theory of two-photon processes

SOURCE: IVUZ. Radiofizika, v. 8, no. 3, 1965, 493-503

TOPIC TAGS: resonator, radiation, incoherent scattering, optic pumping, laser optics

ABSTRACT: Combination and double radiation are studied in a substance placed in a resonator with two natural optical frequencies, ω_1 and ω_2. It is shown that an anti-Stokes process is possible under certain conditions in the case where the second working level is metastable, even in the absence of incoherent pumping. Excitation of a Stokes process in such a system takes place only in a definite external field amplitude range. If $\omega_1 + \omega_2 \approx \omega_{21}$, where ω_{21} corresponds to the difference between the working levels of the system, stationary radiation of fields of both ω_1 and ω_2 can be obtained with sufficient incoherent pumping power. The conditions for stability of this mode of operation are found. "The authors take this opportunity

Card 1/2

L 63849-65

ACCESSION NR: AP5020361

44 44 44

to express thanks to V. I. Bespalov, L. V. Postnikov, and V. M. Fayn for useful discussions." Orig. art. has: 45 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute at Gor'kiy University)

SUBMITTED: 09Jan65 ENCL: 00 SUB CODE: OP

NO REF SOV: 005 OTHER: 002

Card 2/2

GUREVICH, G.L.; KHRONOPULO, Yu.G.

Problems of the theory of two-photon processes. Izv.vys.ucheb.zav.; radiofiz. 8 no.3:493-503 '65. (MIRA 18:8)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete.

GUREVICH, G.I.; OTMAKHOV, Yu.A.; ROZENBLYUM, Ya.A.

Propagation of electromagnetic beams in gyrotropic media.
Izv. vys. ucheb. zav.; radiofiz. 8 no.4:725-737 '65.
(MIRA 18:9)

L 42297-66 EWT(1) GG

ACC NR: AP5022796 SOURCE CODE: UR/0141/65/008/004/0725/0737

AUTHOR: Gurevich, G. L.; Otmakhov, Yu. A.; Rozenblyum, Ye. A.

55
54
B

ORG: none

TITLE: Electromagnetic beam propagation in gyrotropic media

SOURCE: IVUZ. Radiofizika, v. 8, no. 4, 1965, 725-737

TOPIC TAGS: electromagnetic beam, wave propagation, ferrite, electromagnetic wave diffraction, approximate solution

ABSTRACT: The problem of the propagation of electromagnetic beams in an infinite gyrotropic medium is solved with consideration of spatial dispersion. Specific examples of electromagnetic beam propagation in a ferrite with and without absorption are examined. The author examines the case where the ratio of the wavelength to the characteristic dimensions of the field is small but not equal to zero. It is shown that in this case it is possible to obtain results in a form analogous to the Fresnel formula in the diffraction theory. In some cases this permits the direct use of the results of this theory. The approximation used by the authors is called quasi-optic and the solutions obtained in this approximation are called beams, as for isotropic media. Although the examination pertains to ferrites, the results can easily be ex-

UDC: 621.371:538.245

Card 1/2

L 42297-66
ACC NR: AP5022796

tended to any gyrotropic medium and to the case of active linear media with tensor parameters. The authors thank V. I. Talanov for his interest in the work. Orig. art. has: 6 figures and 45 formulas.

SUB CODE: 12,20/ SUBM DATE: 10Oct64/ ORIG REF: 006/ OTH REF: 003

Card 2/2

L 37924-66 FBD/EWT(l)/EEC(k)-2/T/EWP(k) IJP(c) WG

ACC NR: AP6022079 SOURCE CODE: UR/0141/66/009/003/0538/0544

AUTHOR: Butylkin, V. S.; Gurevich, G. L.; Kheyfets, M. I.; Khronopulo, Yu. G.

ORG: Scientific-research Institute of Radiophysics, Gor'kiy University (Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete)

TITLE: Effect of the resonance field on the operation of a two-photon laser

SOURCE: IVUZ. Radiofizika, v. 9, no. 3, 1966, 538-544

TOPIC TAGS: laser theory, laser R and D, two photon laser

ABSTRACT: R. L. Garwin considered two-photon processes in a substance incorporated within the laser resonator (IBM J. Rand D, 8, 338, 1964); natural frequencies of the resonator were ω_1, ω_2, ω_3; the field of near-ω_{12} frequency was assumed to be nonexistent. As the resonator practically always has a finite Q at ω_{12}, the present article examines possible effects of the ω_{12} resonance field on the laser operation. Integral equations describing the fields are added to material-system equations; the solutions are analyzed for these cases: (a) one of the fields is specified and (b) no field is specified. It is found that: (1) A resonator tuned to the frequency of transition between active levels of the substance may considerably impair the excitation conditions in a two-photon laser; (2) The number of excited particles required for the stationary generation of the combination field does not change substantially. Orig. art. has: 2 figures and 34 formulas. [03]

SUB CODE: 20 / SUBM DATE: 31Aug65 / ORIG REF: 005 / OTH REF: 001

UDC: 621.378.325

Card 1/1 mcp

L 38104-66 FBD/EWT(1)/EEC(k)-2/T/EWP(k) IJP(c) WG

ACC NR: AP6022080 SOURCE CODE: UR/0141/66/009/003/0545/0549

AUTHOR: Butylkin, V. S.; Gurevich, G. L.; Kheyfets, M. I.; Khronopulo, Yu. G.

ORG: Scientific Research Institute of Radiophysics, Gor'kiy University (Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete)

TITLE: Generation of the second harmonic in a resonant laser

SOURCE: IVUZ. Radiofizika, v. 9, no. 3, 1966, 545-549

TOPIC TAGS: laser theory, laser R and D, nonlinear optics

ABSTRACT: As a strong ω-field exists in the resonator of conventional lasers and as the populations of active levels are inverted, a 2 ω-field may arise due to the anti-Stokes process in the laser active substance. Equations describing this process are set up and analyzed. It is found that the stationary generation of a 2 ω-field can materialize only with a sufficiently large (giant pulse) number of excited particles (10^{19} -- 10^{21}); the population difference of such an order can be obtained under pulsed-Q operating conditions. Even under the giant-pulse conditions, frequency doubling is possible only when the active medium meets some rigorous requirements: the quantity $|\sigma_{21}|$ must be very large and the 2—1 transition must be highly forbidden, $|p_{12}| < 10^{-20}$ CGSE. Orig. art. has: 1 figure and 28 formulas. [03]

SUB CODE: 20 / SUBM DATE: 31Aug65 / ORIG REF: 003 / OTH REF: 001/ ATD PRESS: 5046

UDC: 621.378.325

Card 1/1

SOURCE CODE: UR/0056/66/051/005/1499/1509

ACC NR: AP6037080

AUTHOR: Gurevich, G. L.; Khronopulo, Yu. G.

ORG: Institute of Radio Engineering and Electronics, Academy of Sciences SSSR (Institut radiotekhniki i elektroniki Akademii nauk SSSR)

TITLE: The resonant parametric interaction of strong optical fields

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1499-1509

TOPIC TAGS: nonlinear optics, harmonic generation, parametric amplification

ABSTRACT: A theoretical study was made of the parametric interaction of three strong electromagnetic waves with frequencies ω_1, ω_2, and ω_3 which satisfy the condition $\omega_1 + \omega_2 = \omega_3$, where ω_3 is the absorption frequency of the substance. The equations derived to describe the above interaction in non-inverted and inverted systems allow for the saturation effect. Studies were made of the qualitative differences existing between resonant and nonresonant parametric interactions, the generation of the sum frequency, and the parametric division of frequency. The analytical expressions derived for the attendant field strengths were shown to depend essentially on the rate of the two-photon absorption of the two fields $E(\omega_1)$ and $E(\omega_2)$. The maximum conversion factor of $E(\omega_1)$ and $E(\omega_2)$ into $E(\omega_3)$ was also determined. The length at which a considerable energy transfer occurs was shown to depend

Card 1/2

ACC NR: AP6037080

on the particle lifetime of the working substance in an excited state, and the resonant parametric interaction was found to be less critical with respect to the mode-locking criterion than the nonresonant one. Numerical calculations were also made for a working substance consisting of impurities in a dielectric. Orig. art. has: 2 figures and 49 formulas.

SUB CODE: 20/ SUBM DATE: 25May66/ ORIG REF: 007/ OTH REF: 004/ ATD PRESS: 5107

Card 2/2

GUREVICH, G. M.

USSR

"Live Tail-Stock Centers", Kalibr,
Stanki i Instrument,10, No. 7, 1939,
Engineer.

Report U-1505, 4 Oct 1951.

GUREVICH, G. M., Engineer

USSR

"Live Centers for Lathes." Stanki I Instrument
Vol. 15, No. 6, 1944

BR 52059019

BELYAKOV, F.Ye.; BABIN, B.N.; BAL', V.; BOROVKOV, P.N.; VOYEVODIN, I.N.; GUREVICH, G.M.; GORBUNOVA, P.I.; KONNOV, A.S.; KALANTAROVA, M.V.; KASHIRSKIY, A.Ya.; KAZANCHEYEV, Ye.N.; LEKSUTKIN, A.F.; LETICHEVSKIY, M.A.; LOPATIN, S.Z.; MIRSKIY, V.N.; PODSEVALOV, V.N.; SUBBOTINA, V.P.; TANASIYCHUK, N.P.; FEDOTOV, S.D.; FISENKO, K.N.; EL'KIND, I.G.; BOVIN, S.S.; VASIL'YEV, L.T.; DRINKOV, V.D.; DALECHIN, N.I.; DADAGOV, I.A.; YERMOSHINA, V.I.; ZHUKOV, I.V.; ZIMIN, D.A.; IVANNIKOV, A.Ya.; KOVALEV, M.K.; LUGAKOVSKIY, N.L.; NALEVSKIY, A.F.; SEREZHNIKOV, V.K.; SEMIGLASOV, M.D.; SOKOLOV, A.V.; STEPANOV, V.I.; SAKHARIN, G.S.; SAVENKO, P.A.; SOLODOV, V.P.; UMEROV, Sh.Kh.; CHIKINDAS, G.S.; SHCHERBUKHINA, S.N.; DYNKIN, G.Z.; LYSOV, V.S.; OSHEROVICH, A.N.; ROKITSINSKIY, E.V.; BRASLAVSKIY, M.S.; RUDENKO, I.A.; ZHUKOBORSKIY, M.S.; ZHDANOV, I.Ye.; SUSLIN, V.A.; BRUS, A.Ye.; VOLYNSKIY, S.A.; KLYUYEV, V.A.; ISTRATOV, A.G.; TIKHOMIROV, I.F.; BUTYRIN, Ya.N.; VOLYNSKIY, S.A.; MINEYEV, M.F.; MAL'TSEV, V.I.; VIDETSKIY, A.F., kand.tekhn.nauk, glavnyy red.; DEMIDOV, A.N., red.; KRAVETS, A.L., red.; KLIMOVA, Z.I., tekhn.red.

[Industrial Astrakhan] Promyshlennaia Astrakhan'. Astrakhan', Izd-vo gazety "Volga," 1959. 318 p. (MIRA 12:11)

1. Astrakhan (Province) Ekonomicheskiy administrativnyy rayon. (Astrakhan Province--Economic conditions)

PA 228T17

USSR/Medicine - Hypnotic Sleep Oct 52

"Psychotherapeutic Method of Preoperative Preparation," Prof. G. M. Gurevich, I. S. Mastbaum, Khar'kov Stomatol Inst

School of Nerve Disorders.

"Khirurgiya" No 10 pp 12-16

Advocates hypnotic treatment of patients in surgical practice. Explains this method as a passive inhibition of the central nervous system. Describes clinical cases in which operations were performed under local anesthesia, after a hypnotic preoperative treatment. Suggests further research and experimentation on the use of hypnosis in medical practice, especially in deep sleep continuing after the operation. Describes successful treatment of phantom limb pain.

228T17

GUREVICH, G. M.

228T17

SOROKIN, N.M., kandidat meditsinskikh nauk, zaveduyushchiy; STELLING, Ye.V., glavnyy vrach; GUREVICH, G.M., professor, zasluzhennyy deyatel' nauki; BAZLOV, Ye.A., dotsent, direktor.

Diagnostic value of roentgenological and cytological method of examination of tumors and tumor-like neoplasms in the parotid gland. Vest.rent.i rad. no.3:7-13 My-Je '53. (MLRA 6:8)

1. Khirurgicheskoye otdeleniye Stalinskogo oblonkodispansera (for Sorokin). 2. Stalinskiy oblonkodispanser (for Stelling). 3. Khirurgicheskaya klinika Khar'kovskogo rentgeno-radiologicheskogo i onkologicheskogo instituta (for Gurevich). 4. Khar'kovskiy rentgeno-radiologicheskiy i onkologicheskiy institut (for Bazlov). (Parotid glands--Tumors) (Diagnosis--Radioscopic)

GUREVICH, G.M., professor, zasluzhennyy deyatel' nauki, zaveduyushchiy; VLASENKO, P.V., direktor.

Role of shock in the pathogenesis of anaerobic infection. Vest.khir. 73 no. 4:3-8 Jl-Ag '53. (MLRA 6:8)

1. Kafedra khirurgicheskikh bolezney Khar'kovskogo meditsinskogo stomatologicheskogo instituta (for Gurevich). 2. Khar'kovskiy meditsinskiy stomatologicheskiy institut (for Vlasenko).
(Infection) (Bacteria, Anaerobic) (Shock)

EXCERPTA MEDICA Sec.9 Vol.11/11 Surgery Nov 57

GUREVICH G.M.

5842. GUREVICH G.M. Surg. Clin. of the Stomatol. Inst., Kharkov, USSR.
*Contribution to the cause and origin of acute complications in operations for thyrotoxicosis (Russian text)
PROBL. ENDOCR. 1955, 1/3 (42-45)

In studying postoperative reactions in patients with Basedow's disease, no increase of the iodine content of the blood after the operation was found. The author attaches importance to the stimulation of the vegetative nervous system in operations in the region of the neck, which is responsible for the development of postoperative complications, and distinguishes 2 variants of complications - aggravation of thyrotoxic phenomena and shock.

Dilman - Leningrad

EXCERPTA MEDICA Sec.9 Vol.11/11 Surgery Nov 57

Gurevich G.M.

5841. GUREVICH G.M. Surg. Clin. of the Stomatol. Inst., Kharkov, USSR.
Fundamental questions in the surgical treatment of thyrotoxicosis (Russian text) VESTN.KHIR. 1955, 8 (83-89)

Of 327 patients operated upon (3 with fatal results) for goitre, 226 had marked symptoms of thyrotoxicosis. During the first 2 post-operative days there was a reaction resembling an acute display of the characteristic Basedow symptoms. This condition may lead to a state of cardiovascular derangement and shock, independently of the specific secretion of the thyroid gland and unconnected with the excess or with the sudden lack of absorption of the secretion into the blood. Fundamentally, the reaction is caused by the sharply increased reactivity of the organism because of the thyrotoxicosis. Careful performance of the operation and the pre-operative medication are of decisive importance in the prevention of acute post-operative illness.

Stuchinskii - Leningrad

EXCERPTA MEDICA Sec.9 Vol.11/12 Surgery Dec 57

Gurevich, G.M.

6414. GUREVICH G. M. Med. Inst. of Stomatol., Kharkov, USSR. *Anaesthesia of the anterior mediastinum in operations for thyrotoxicosis (Russian text) VRAC. DELO 1956, 5 (485-488).

Taking into consideration the connections between the cardiac nerves and the innervation of the thyroid gland the author anaesthetized the anterior mediastinum with 0.5% novocaine (60-80 ml.) in order to prevent a postoperative 'thyrotoxic' shock. The method was applied on 97 patients with satisfactory results.

Lekishvili - Leningrad

3200. THYROID FUNCTION IN HYPERTHYROIDISM FOLLOWING SURGICAL TREATMENT (Russian text) - Gurevich G. M. and Dyskin V. P. KLIN. MED. (Mosk.) 1957, 35/4 (105-109) Tables 4

Post-operative function was tested by measuring the radioactivity of I^{131} absorbed by the thyroid stump. The conclusion was that the effectiveness of the operation depends not solely on the mechanical removal of the glandular tissue but also on the change of the neurohumoral and neuroconductive regulation in the stump. The authors confirm the theory of bi-directional action of the thyreotropic hormone which should not be considered as the only stimulant because identical effects may be due to nervous stimuli via nerve paths of the thyroid gland.

Zakrys - Lublin (IX, 6)

GUREVICH, G.M., prof., zasluzhennyy deyatel' nauki (Khar'kov)

Clinical experiences with parathyroid tetany. Probl. endok. i gorm. 5 no.2:52-57 Mr-Ap '59. (MIRA 12:7)

1. Iz khirurgicheskoy kliniki Khar'kovskogo gosudarstvennogo meditsinskogo stomatologicheskogo instituta (dir. - dotsent G.S. Voronyanskiy)
(TETANY, case reports,
(Rus))

GUREVICH, G.M.

Bleeding during the operation and in the postoperative period when surgery is performed on the thyroid gland. Trudy Inst.eksp. i klin.khir. i gemat. AN Gruz.SSR 10:163-167 '62.

(MIRA 16:2)

(HEMORRHAGE) (THYROID GLAND--SURGERY)

GUREVICH, G.P.

Some nutritional problems in the etiology of endemic goiter in the Maritime Territory [with summary in English]. Probl.endok. i gorm. 4 no.1:100-104 Ja-F'58 (MIRA 11:5)

1. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny (dir. T.P. Ivanenko)
(GOITER, statistics,
endemicity in Russia, nutritional factors (Rus))
(NUTRITION,
in etiol. of endemic goiter in Russia (Rus))

GUREVICH, G.P. (Vladivostok).

Some data on the role of soil and water factors in the etiology of endemic goiter in Maritime Territory. Probl. endokr. i gorm. 4 no.5:106-109 S-O '58. (MIRA 11:12)

1. Iz Primorskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny (dir. T.P. Ivanenko).

(GOITER, epidemiology,
endemicity in Russia, relation to soil & water chem (Rus))
(WATER SUPPLY,
chem. relation to goiter endemicity in Russia (Rus))
(SOIL,
same)

GUREVICH, G.P., kand.biol.nauk; MUKHINA, L.D. (Vladivostok)

Data on the thyroid gland in the population of the Maritime Territory [with summary in English]. Probl.endok. i gorm. 4 no.6:52-55 N-D '58. (MIRA 12:2)

1. Iz Vladivostokskogo instituta epidemilolgii, mikrobiologii i gigiyeny (dir. T.P. Ivanenko) i krayevoy bol'nitsy (glavnyy vrach V.V. Miryan).
(THYROID GLAND,
iodine content & weight, autopsy statist. (Rus))

GUREVICH, G.P.

Experience in enriching eggs with iodine by supplementing chicken feed with sea weed and fish meal. Vop.pit. 18 no.5:66-70 S-O '59. (MIRA 13:1)

1. Iz Instituta epidemiologii, mikrobiologii i gigiyeny, Vladivostok.
(IODINE)
(EGGS)
(SEAWEED)
(FISH)

GURKVICH, G.P., kand.biol.nauk

New mehtod of prophylaxis of endemic goiter in the Maritime Territory. Vrach.delo no.11:1205-1207 N '59. (MIRA 13:4)

1. Vladivostokskiy institut epidemiologii, mikrobiologii i gigiyeny.
(MARITIME TERRITORY--GOITER) (SEAWEED) (FISH-SCRAP FERTILIZER)

GUREVICH, G.P.

Iodine content of food products from the Maritime Territory.
Vop. pit. 19 no. 5:57-59 S-O '60. (MIRA 14:2)

1. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i digiyeny.
(MARITIME TERRITORY—IODINE)

GUREVICH, G.P., kand.biologicheskikh nauk

A biogeochemical province, poor in iodine, cobalt, and molybdenum. Gig. i san. 26 no.5:95-97 My '61. (MIRA 15:4)

1. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(MARITIME TERRITORY--MINERALS IN SOIL)

GUREVICH, G.P.

Natural amount of copper and zinc in food products of the Maritime Territory. Vop. pit. 20 no.5:38-40 S-O '61. (MIRA 14:10)

1. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(MARITIME TERRITORY--MINERALS IN FOOD)
(COPPER) (ZINC)

GUREVICH, G.P., kand.biologicheskikh nauk; BELOV, N.M., nauchnyy sotrudnik

Enriching milk with iodine by feeding algae and fish meal to cows.
Veterinariia 38 no.1:71-72 Ja '61. (MIRA 15:4)

1. Primorskaya opytnaya sel'skokhozyaystvennaya stantsiya.
(Milk--Composition) (Algae as food)
(Fish meal) (Iodine)

GUREVICH, G.P.

Utilization of local iodine-containing fertilizers as a measure for the prevention of endemic goiter. Trudy VladIFMG no.2:202-207 '62.

Adoption of various iodine compounds by the animal organism in relation to a new method of preventing endemic goiter in the Maritime Territory. Ibid.:207-209

Some data on the molybdenum content in some objects of the external environment in the Maritime Territory. Ibid.:209-210
(MIRA 18:3)

1. Iz Vladivostokskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny.

GUREVICH, G.P.; MALYUTINA, L.I.

Natural content of cobalt in the soil and foods in the Maritime Territory in relation to the problem of endemic goiter. Trudy VladIEMG no.2:211-213 '62. (MIRA 18:3)

1. Iz Vladivostokskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny.

DUBEVICH, G.P., KHMELEVA, M.G., KUZNETSOVA, M.S.

Content of iodine, cobalt and copper in the rations of students of a boarding school in Vladivostok. Trudy VladIEM? no.2: 214-216 '62. (MIRA 18:3)

1. Iz Vladivostokskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny i Vladivostokskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.

[illegible]EVICH, G.P.; [illegible]; KAZAKOV, V.A.

Hygienic evaluation of the air in Vladivostok. Trudy VladIEMG no.2:222-227 '62. (MIRA 18:3)

1. Iz Vladivostokskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny.

GUREVICH, G.P.

Soil fertilization with iodine resources of the Maritime Territory as a prophylactic measure against endemic goiter. Izv.AN SSSR.Ser. biol. no.5:791-796 S-O '62. (MIRA 15:10)

1. The Vladivostok Research Institute of Epidemiology, Microbiology and Hygiene.
(MARITIME TERRITORY--GOITER) (IODINE--PHYSIOLOGICAL EFFECT)

GUREVICH, G. P., BELOV, N. M., Candidate of Biological Sciences.

"Additional feeding of algae and fish meal to cows as experimental means for the enrichment of milk with iodine."

Veterinariya, Vol. 38, No. 1, p. 71, 1961.

GERTSEN, G.A.; GUREVICH, G.R.; KUL'PIN, L.G.

Determination of the parameters of a layer based on observations on the nonsteady linear gas flow. Trudy MINKHiGP no.29:70-80 '60. (MIRA 13:12)

(Oil reservoir engineering)

KOSTYLEVA, L.A., kand.med.nauk; GUREVICH, G.R., inzh.; STUPKINA, N.V.

Apparatus for the accommodation of the armless. Ortop., travm.i protez. no.5:47-51 '61. (MIRA 14:8)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta protezirovaniya (dir. - dotsent M.V. Strukov).
(ORTHOPEDIC APPARATUS) (AMPUTATION STUMPS)

BASNIYEV, K.S.; GUREVICH, G.R.; NIKOLAYEVSKY, V.N. (Moscow)

"On gas-condensate flow in porous media"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964

LAPUK, B.B.;PETROV, V.N.; GUREVICH, G.R.

Nonsteady flow of real gases. Gaz. prom. 9 no.9:3-7 '64.
(MIRA 17:10)

GUREVICH, G.S.; LEVIN, S.Z.; DINER, I.S.

Stereochemistry of cyclohexanedicarboxylic acids. Part 2: Stereochemistry of the catalytic hydrogenation lf dimethyl ether of cyclohexane-1,4-dimethanol. Zhur.ob.khim. 34 no.2:696-699 F '64. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

S/204/62/002/004/012/019
E075/E435

AUTHORS: Levin, S.Z., Diner, I.S., Gurevich, G.S.

TITLE: Catalytic hydrogenation of dimethylester of terephthalic acid

PERIODICAL: Neftekhimiya, v.2, no.4, 1962, 566-572

TEXT: In view of scarcity of data on the industrial preparation of hexahydrophthalic acid, hexahydroisophthalic acid and hexahydro-p-xylyleneglycol, an investigation was carried out of the hydrogenation of phthalic acids. The catalysts examined were: Zn-Cr, Cu-Cr-Ni, Ni-Cr and Ni on Kieselguhr. The experiments were conducted in a steel autoclave with a powdered catalyst suspended in the molten reactant. Ni-Cr and Ni on Kieselguhr catalysts gave an 85 to 89% yield of hexahydrodimethylterephthalate under a wide range of pressures and temperatures. For the Ni on Kieselguhr catalyst, pressures from 150 to 300 atm and temperatures from 180 to 300°C can be used. The best conditions are: pressure 150 atm, temperature 240°C, giving yields of the product of up to 90%. The product constitutes a mixture of stereoisomers of hexahydrodimethylterephthalate. The main

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hydrogenation reaction leads to the formation of cis - isomer and the presence of trans - isomer is due to a secondary isomerization reaction. The ratio between the two isomers depended strongly on the reaction temperature and pressure, the highest yield of the trans - isomer obtained being 60 to 70%. Hexahydro-p-cylene-glycol was prepared by using Cu-Cr catalyst reduced with H_2. The apparatus and conditions used were similar to those given above (temperature - 300°C, pressure - 300 atm). To obtain the highest yields of the product (94 to 95%) the catalyst concentration must be between 8.0 and 10.0% wt. of the feedstock. An unsuccessful attempt was made to produce individual isomers of the glycol by hydrogenation of the pure isomers of hexahydrodimethylterephthalate. There are 1 figure and 6 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov (All-Union Scientific Research Institute of Petrochemical Processes)

GUREVICH, G.S.; LEVIN, S.Z.; DINER, I.S.

Stereochemistry of cyclohexanedicarboxylic acids. Part 1: Cis-trans-isomerization of dimethyl ester of cyclohexane-1,4-dicarboxylic acid. Zhur.ob.khim. 33 no.6:1916-1919 Je '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.
(Cyclohexanedicarboxylic acid) (Stereochemistry)

GUREVICH, G.S.; LEVIN, S.Z.; DINER, I.S.

Production of hydroaromatic dicarboxylic acids. Zhur.prikl. khim. 37 no. 5:1139-1141 My '64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

IEVIN, S.Z.; KARPOV, A.Z.; SEDOVA, I.G.; BATEHINA, A.D.; GURVICH, G.S.

Hydrogenation of butyraldehydes on industrial nickel-chromium catalysts. Zhur. prikl. khim. 37 no.6:1391-1394 Je '64. (MIRA 18:3)

LEVIN, S.Z.; SEDOVA, I.G.; KARPOV, A.Z.; BATENINA, A.D.; GUREVICH, G.S.

Hydrogenation of C_6 - C_8 aliphatic aldehydes on a zinc-containing catalyst. Zhur.prikl.khim. 37 no.7:1631-1633 Jl '64. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

LEVIN, S.Z.; GUREVICH, G.S.; [illegible]; BATENINA, A.D.

Hydrogenation of butyraldehydes on a mixed zinc oxide catalyst.
Zhur. prikl. khim. 37 no.8:1842-1843 Ag '64.
(MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.